

Stated Meeting, December 21, 1860.

Present, twenty-two members.

PROF. CRESSON, Vice-President, in the Chair.

A letter was read from W. H. Harvey, dated Dublin, December 6, 1860, accepting membership.

A letter was read from Dr. Casper Morris, dated Philadelphia, December 18, 1860, resigning membership.

Letters acknowledging the receipt of the Society's publications were read from the Lusatian Society at Görlitz, dated September 14; the Royal Academy at Amsterdam, dated March 24; the Royal Society of Antiquaries, and M. C. C. Rafn, at Copenhagen, dated October 15, 1860.

Letters announcing donations were read from the Royal Society of Antiquaries at Copenhagen, dated October 15; the Lusatian Society at Görlitz, dated September 15; and the Royal Academy at Amsterdam, dated August 15, 1860.

A circular letter was read from C. St. A. Bille, dated Copenhagen, September 17, 1860, explaining the appearance of a series of articles in French in the columns of his paper, the "Dagbladet," on the subject of the Schleswig-Holstein difficulties, with two specimen sheets of the paper.

A letter was read from C. C. Rafn, of Copenhagen, dated October 18, 1860, detailing the publications of the Royal Society of Antiquaries of the North.

A letter was read from H. Wheatland, secretary of the Essex Institute, dated Salem, Massachusetts, December 17, 1860, announcing a donation, and requesting a set of the Proceedings for the library of the Institute. On motion, the request was granted.

A letter was read from the president, Dr. Wood, dated London, November 29, and Paris, December 1, 1860, informing the librarian of the measures he had taken to forward their diplomas to foreign members lately elected, and to obtain sets of the publications of the Geological and Ordnance Surveys of Great Britain and France. The secretaries were

authorized to make application to the French authorities for the publication of the French Survey. And so much of the letter as related to certain parts of the British series was referred, on motion of Dr. Bache, to a committee of three, consisting of Mr. Lesley, Mr. Trego, and Mr. Foulke.

A letter was read from Matthew S. Henry, dated Philadelphia, December 20, 1860, offering for sale at not less than \$100, a MS. vocabulary of the Delaware Indian Languages. The volume (of 800 pages) was exhibited, and the application of the author was, on motion, referred to a committee of three, to be appointed by the president, and announced at the next meeting. The president appointed Dr. B. H. Coates, Mr. Lesley, and Mr. Foulke.

The following donations for the library, were announced:

- R. S. N. Antiq. Copenhagen, extract from statutes, list, &c. 4, 16, 12 pp. 1860.—*From the Society.*
- Runeindskrift i Piræus; interpretée par C. C. Rafn (pp. 250). 1860. Copenhagen. 8vo.—*From the same Society.*
- Jaarboek van de K. Akad. van W. te Amsterdam. 1859. 8vo.
Verslagen en Mededeelingen. Afd. Lett. vijfde deel.
Afd. Nat. tiende deel. Amsterdam. 1860. 8vo.
Catalogus van de boekerij der K. A. I. 2. Amst. 1860. 8vo.
Verslag over den Paalworm, pp. 150. Amst. 1860. 8vo.
- Neues Lausitz. Mag. XXXVII, i, ii, pp. 500. Görlitz. 1860. 8vo.
- Quar. Jour. Chem. Soc. London, LI. 1860. 8vo.—*From the Society.*
- Proc. Royal Soc. London, X. No. 39. 8vo.—*From the Society.*
- Proc. S. Ant. London, IV, iil-lii; 1, i, 2d Ser. Nov. 17.—Dec. 22, 1859.—List of members for 1859 and 1860.—
- Archæologia, XXXIII. 1860. 4to.—*From the Society.*
- Proc. B. N. S. H. VII (23, 24). 1860. 8vo.—*From the Society.*
- Cambridge Ass. Jour., No. 142.—*From the Editor.*
- Proc. Acad. N. S. Philadelphia (33), 1860. 8vo.—*From the Acad.*
- Journal Franklin Inst. No. 420. Philadelphia. 8vo.—*From the Inst.*
- Patent Office Report, for 1859. Wash. 8vo.—*From the Bureau.*
- Smithsonian Inst. R. for 1859. 8vo.—Smith. Misc. Contributions:—
Cat. of described Lepidoptera of N. A. J. G. Morris. 1860. 8vo.
Cat. of described Diptera of N. Amer. R. Ostensacken. 1860. 8vo.
Cat. of Publications of Societies, and other Periodical Works in the
Lib. of S. I. July 1, 1858. Foreign Works. Wash. 1859.

African Repository. December, 1860.—*From A. Col. Society.*
 Desc. of Bond's Isodynamic Escapement. Boston. 1860. pp. 4.
 Lunar tidal Wave in Lake Michigan. J. D. Graham. 1860. pp. 7.

Dr. Bache read a circular letter of the relatives of M. Steen Anderson de Bille, a member of the Society, and formerly Chargé d'Affaires of Denmark, near the United States government, announcing his decease, at Bruxelles, November 28, 1860, at the age of 79. Dr. Bache and Dr. Hays described the virtues and attainments of the deceased; and, on motion of Dr. Leidy, Dr. Bache was appointed to prepare an obituary notice.

Mr. Franklin Peale exhibited a numerous collection of Indian arrow-heads, flint-knives, and pottery, with the following remarks:

The members of the Society are aware, from the proceedings of the various learned societies, which have been laid before them, and particularly from the establishment of an institution with express reference to the subject, which was placed upon the list of our correspondents at the last meeting, that much attention is now given to the works of Man, found with the remains of extinct animals, in Diluvial deposits and in Bone caves.

It is not my intention to enter into an investigation of this branch of research, as our resources are much too meagre at this time; but I solicit the indulgence of the Society, in behalf of a few remarks upon a department of Ethnology that, I cannot help observing, has been too much neglected in this country.

The learned Conservator of the Museum of Copenhagen, so rich in Scandinavian Antiquities, several English Philosophers, including Messrs. Lyell and Prestwick, have recognized the term "Stone Period of the Human Race," as that condition in which the art of working metal was unknown; followed by the "Bronze Period," that in which rude art fashioned the alloys of copper into weapons of war and utility; and ending with the "Iron Period," the last, that in which the working of iron, and its conversion into steel, brings us to the summit of our career in Arts, Sciences, and their congeners, Literature and the Fine Arts.

Retracing this order, it is not necessary to pause upon the latter period, but proceed at once to state, that in the territory of the United States the Bronze Period may be said to have scarcely had

an existence. It is true, that various articles have been found, made of copper, usually taken from the Mounds, even as far south as Florida, but which, it is almost certain, had their origin in the deposits of native copper of the Lake Superior region; where rude excavations and stone implements give frequent and reliable evidence of the source from whence such articles, and they are comparatively rare, have been derived.

But the Stone Period of the inhabitants of our portion of the Continent is rich beyond all precedent, as far as we are able to judge, in specimens, scattered over the whole face of the country, but recent in date for, they were left by the "Red Man," whose fate it has been to pass out of existence before the path of the White Invader, leaving only his traditions, and these evidences of his hard, but inevitable destiny.

Is it not singular, that, in all ages and in nearly all portions of the world, the same means, in this rude state of existence, should be employed by Man to supply his wants? From it, we may draw conclusions that, in the words of Dr. Davis, the author of "Crania Britannica," when discussing the subject in connection with the Egyptians and Ancient Britons, "plead for the unity of the human race much more powerfully and more rationally than the metaphysical arguments, with which the doctrine is usually sustained." "It shows that man, in the same state, is everywhere the same; so much so, that the selfsame simple ornaments, produced by the selfsame instruments or the same materials, are to be seen everywhere alike. Nay, we may go further than this even, and show that the same instrument is made everywhere by the same number of strokes, given in exactly the same direction. There must, therefore, have been the same wants, the same powers and capabilities, the same skill, and actually the same taste or the same desire for the beautiful, with exactly the same means of gratifying it."

In a preceding paragraph are the words "but of recent date:" this expression is used for reasons that will appear in the course of this communication, for there are Tribes still living on this Continent who use stone implements, because the white trader has not yet supplied them with the metal which supersedes its use; and some of the specimens, which are herewith submitted to the inspection of the Society, were derived from Tribes that have given way recently to the gold-seeking pioneers of California. These facts bring us to the immediate object of this communication, which is, to point out

the close similitude of the specimens selected from my cabinet, and laid before the Society, with the figures of "Prominent forms of flint implements found in the Valley of the Somme," at Amiens and Abbeville, described in the proceedings of the Literary and Philosophical Society of Liverpool, in a communication by Henry Duckworth, F. R. G. S., &c. They are so much alike, that they may almost be viewed as the identical specimens from which the artist made his designs.

There is no reason to mistrust the authenticity of the source from whence the figured specimens were derived, and that they were the works of man's hand, no one at all conversant with the subject can for a moment doubt; the general form and conchoidal fracture leave no room for error; and the presence of bones of the extinct animals associated with them in undisturbed diluvium, and in bone caves, is well established.

The conclusions from these accepted facts of association of the bones of the elephant, rhinoceros, cave bear, hyena, and other extinct animals, with flint knives, arrow-heads, and other "worked flints," of man's making, do not involve any necessity of an earlier or more remote origin of our race, than is usually received as orthodox, but evidently brings the existence of these animals down to a later and contemporaneous period.

M. Boucher de Perthes, is unquestionably the pioneer in this research; but he is an enthusiast in his science, and some of the figures in his first volume, if faithful, will require a like temperament to see, as he saw; or more correctly, perhaps, be it said, as his engraver desires the observer to see.

The forms of the specimens submitted to the inspection of the Society are well-nigh identical, as are those of various other specimens from my cabinet, with those from Amiens and Abbeville.

We do not know with certainty what the material of the French and English specimens is, but have reason to believe that they were made of flint, as the prevalence of that mineral and the proximity of chalk account alike for its origin and abundance. They are undoubtedly, like those of this country, composed of a silicious base. Ours, likewise, are of horn-stone, jasper, &c., and all the varieties of transition from simple sandstone to pure chalcedony: But here all similitude ceases; these are taken from the surface of the earth, emphatically from the soil, or turned up by the plough, which had, on some former furrow-trod path, turned them under it; or they were found on the borders of our rivers, the caving banks of

which, by the freshet's flow, have been washed away, leaving the heavier stone implements at rest among the pebbles and sand of their shores.

What their age is no man can tell; but we do know that their use gave way to the advent of the white man; some of them undoubtedly buried or abandoned, like the tomahawk of war on the approach of the peaceful Penn and the benevolent founders of our State.

With regard to the use of the implements under immediate consideration we are left entirely to conjecture. They have not the pointed or lance form of the true spear-head, of which there are abundant specimens (a few are laid upon the table); but have an oval form, frequently without sharp edges, and have been distinguished by the term, "almond-shaped implements." That they were "sling-stones," as some have supposed, is much less probable than that they were inserted, in rows, into wooden handles or staffs, like certain ancient weapons of war,—the beak of the saw-fish, or the shark's tooth, offensive weapons of the South Pacific islanders of the present day.

In connection with this subject, the attention of the Society is solicited to the interesting fact, that during the Stone Period the manufacture of pottery was simultaneously practised, in a rude state it is true, but sufficiently perfect to answer most of the needs of a savage existence, with attempts at ornament, and in some instances graceful forms, that show an effort for the beautiful. A band frequently surrounds the brim, occasionally turned over, although they were sometimes moulded without this ornamental form; for the makers of these utensils, like the makers of arrow-heads, had different degrees of excellence in their art, and exhibit as striking differences in correctness of eye and neatness of hand, as we see, in this our day, of skilful workmen, and the botched jobs of apprentices who have mistaken their calling.

The attempts at the ornamental decoration of pottery are frequently, if not invariably, exhibited in diagonal lines, alternating at intervals, and parallel lines, and dots; the first reminding us of the rude attempts, with a like object, in certain early samples of Saxon architecture. There is also exhibited a graining of the surface, evidently made by or with the "cob," from which the Indian corn has been removed.

These pots were round on the bottom, plain, and without legs.

The material is clay, in a crude state, nothing but the stones

being removed ; sand and other impurities were neglected, and they are entirely unglazed.

They were baked by the application of fire to the interior, of sufficient force to render the fragments, which are so abundant, imperishable by time or exposure.

A similar condition of art, under similar circumstances, is strikingly exemplified by fragmental specimens of pottery of the Ancient Irish. The specimens of that art laid upon the table, were taken from a "clough" or mound in County Down, Ireland, which was opened in the present year.

These specimens show a ruder condition of art, and are ornamented by diagonal lines, also ruder than in the American specimens ; but the material, both in treatment and composition, is similar, and like them, were burnt by application of fire to the interior.

As a closing remark, the condition of the arts, as exemplified by the relics of the Stone Period, and the pottery which accompanied it, are strikingly similar, wherever and whenever that condition existed. The rude Ancient Briton, the early Scandinavian, fashioned these implements as the savage of this day fashions them, and doubtless supplied his wants, and gave expression to his aspirations by the same rude means.

Professor Trego considered the unsymmetrical and almond-shaped specimens as merely unfinished or half-formed arrow-heads and knives, and described rocks of red jasper near Easton, at the base of which a manufactory of implements existed in Indian times, immense numbers of perfect and imperfect specimens remaining to the present day. Mr. Foulke drew the attention of members to a recent article, written by a learned member of this Society, in "Blackwood's Magazine," giving his opinion of the antiquity of the remains found in the Valley of the Somme. Mr. Peale alluded particularly to a specimen, placed by virtue of its material among a group of chalcedonic lance-heads collected from the region beyond the Mississippi, which was picked up upon the banks of the Schuylkill. As that material cannot be obtained in Pennsylvania the fact stands in evidence of the wide range of Indian trade in articles of warfare. Dr. Coates illustrated the use of the weapons from archæological history ; and, from a comparison of the pic-

ture-writing of the Mexicans with the identical but ruder ornamentation of buffalo robes and tent covers in the Valley of the Upper Missouri, and from other things, deduced his opinion that the developement of art and civilization may be traced from the north southward. Mr. Peale, in reply to questions, described the characteristic "pecking" process by which the best Celts found were prepared for the polishing process and final perfection.

The annual report of the Finance Committee was read and its recommendations in regard to the official bonds of the late and present treasurer were adopted by the Society. The appropriations recommended for the ensuing year were ordered to be made, viz. :

For Journals,	\$50
Hall,	100
Binding,	50
Publications, in addition to the interest on Publication Fund,	500
General account,	1760
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Total,	\$2460

Pending nomination No. 416 and new nomination No. 417 were read.

Mr. Justice tendered his resignation as a member of Council, which was accepted.

On motion of Dr. Bache Dr. Morris's resignation was accepted.

And the Society adjourned.